

Abstract of the Disclosure

5 A substrate with a plurality of microchannels
is movably deployed with other movable objects that will
load sample into the microchannels, stimulate molecular
migration, read the results of the migration, remove and
replace the substrate, and prepare for a new run. The
other objects include a gripper for engaging and moving
the substrate, an electrode array of fine wires suitable
10 for fitting into the microchannels for electromigration,
and a scanning detector for reading migration results. A
sequence of automatic operations is established so that
one substrate after another may be moved into position,
loaded with sample, stimulated for molecular migration,
15 read with a beam, and then removed and replaced with a
fresh substrate.